Abstract

An 1:n or m:n path protection mechanism is provided. Rather than defining an automatic protection protocol, use is made of the existing tandem connection monitoring function, tandem connection reverse defect indication, and tandem connection trail trace identifier. Upon detection of a failure on the working path segment, the occurrence of this failure is communicated to the far end node by inserting forced RDI into the tandem connection as long as the failure persists. In the case of more than one protected paths, the failed path is identified by means of the unique trail trace identifier received on the protection path. In the case of several protection paths, one network node is defined as slave node which has to follow the switch-over initiated by the master node and choose the same protection path as the master node. Preferably, a combination of two timers enables return from failure condition to normal operation.